Noise Engineering
Viol Ruina

Resonant lowpass filter and distortion with internal modulation and envelope following

Overview

Type	Distortion/filter
Size	4HP Eurorack
Depth	.8 Inches
Power	2x5 Eurorack
+12 mA	40 mA
-12 mA	35 mA

Viol Ruina is an all-analog distortion and lowpass filter with an internal envelope follower and self-modulating cutoff. The four-pole design is reminiscent of the classic filters we all know but with a completely new and slightly ridiculous twist. The independently addressable distortion circuit takes VR into overdriven paradise with a shocking amount of drive. Built-in envelope following makes an easy way to create dynamic patches with the flick of a switch, and feedback FM takes VR to a whole new realm of filthiness. Run a sound through VR, you'll get something cool out of it.

Etymology

Viol -- from Latin violo, violentis: "violate, dishonor, violent" Also viola, "purple"
Ruina -- from Latin: "Destruction"

"Violent purple ruins"

Design Notes

Viol Ruina came into existence as part of the Distortion of the Month series. It all began with a single epic distortion module that was really more of an experiment many years before. That module had something like six distortions on it and was really an experiment meant to get a feel for each individual one. Like so many of our early ideas, we knew we had something, but we just didn't have time to get to it. It sat.

When we hired Markus, we dusted it off and handed it to him. He came back to work next all starry eyed and we were convinced that now was the time to do something...but what exactly we weren't sure. We told Markus to go home and decide which of the circuits he liked and how and why. When we sat down to discuss, we designed a load of distortion modules, including VR. It took a little more work and redesigning to get it to its current state -- the envelope extraction was a great add, and we finally had a *gasp* filter!

It sounded darker and meaner and awesomer than we could have hoped for. Viol Ruina. We're sorry. You're welcome.

Power

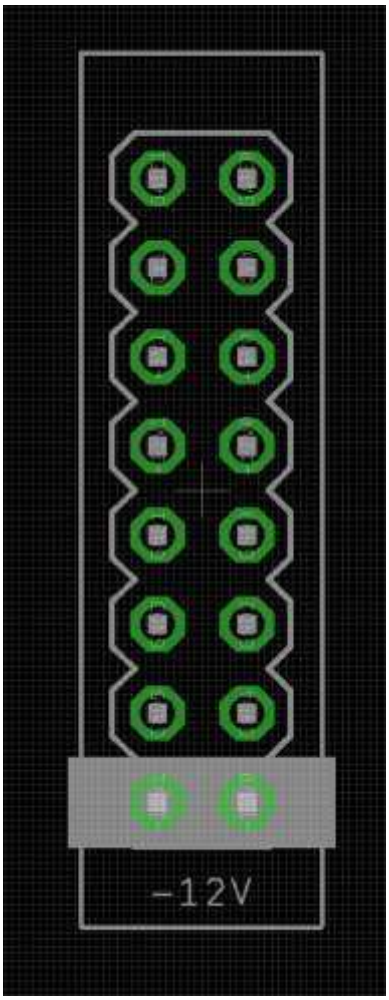
To power your Noise Engineering module, turn off your case. Plug one end of your ribbon cable into your power board so that the red stripe on the ribbon cable is aligned to the side that says -12v and each pin on the power header is plugged into the connector on the ribbon. Make sure no pins are overhanging the connector.

Line up the red stripe on the ribbon cable so that it matches the white stripe and/or -12v indication on the board and plug in the connector.

Screw your module into your case BEFORE powering on the module. You risk bumping the module's PCB against something metallic and damaging it if it's not properly secured when powered on.

You should be good to go if you followed these instructions. Now go make some noise!

A final note. Some modules have other headers -- they may have a different number of pins or may say NOT POWER. In general, unless a manual tells you otherwise, DO NOT CONNECT THOSE TO POWER.

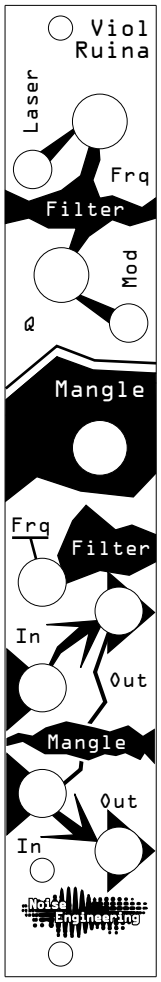


Warranty

Noise Engineering backs all our products with a product warranty: we guarantee our products to be free from manufacturing defects (materials or workmanship) for one year from the date of the original retail purchase (receipt or invoice required). The cost of shipping to Noise Engineering is paid by the user. Modules requiring warranty repair will either be repaired or replaced at Noise Engineering's discretion. If you believe you have a product that has a defect that is out of warranty, please contact us.

This warranty does not cover damage due to improper handling, storage, use, or abuse, modifications, or improper power or other voltage application.

Interface



Frq: Filter cutoff frequency. Knob sums with the Frq CV input.
Laser: Engages the internal envelope follower at different amounts, routed to the cutoff frequency. Down position is off, middle is mild, high is extreme.
Q: Filter resonance.
Mod: The audio is routed back to the filter cutoff frequency for input-dependent FM. Down position is off, middle is mild, high is extreme.
Mangle: Distortion amount. Enough said.
Frq CV: CV input for filter cutoff frequency. Responds to 0-5v.
Filter In: Audio input to the filter section.
Filter Out: Audio output from the filter. Normaled to the Mangle input; normal is broken when Mangle In is patched.
Mangle In: Audio input to the distortion section.
Mangle Out: Audio output from the distortion section.

Patch Tutorial

Patch 1:
Patch a simple waveform like a saw wave to the filter In jack. Patch the mangle Out jack to your mixer. Play with the Frq, Q, Mod, and Mangle parameters to hear what it can do.

Patch 2:
Patch a signal with lots of dynamics and harmonic content like a drum loop into the Filter In jack. Engage the Laser section and hear how the envelope follower shapes the filter to the sound.
Patch 3:

Patch a sound to drive In. Patch Drive Out to Filter In, and Filter Out to your mixer. Now you can distort your sound before the filter! Cool!